



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

DAS
6
0-00

600 5-180
D205-596-105
Job Sheet 170724



Part No: D205-596-105

Job Qty: 1 ea

Part Name: Fwd Crosstube - Extended Height 31"



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 1/18/18

Job Tracking No:

Due Date: 1/26/18

Created By: Mario Poulin

Type: SOLD

Description:

Note: URF 14-644 DWG REV B(DEO) U/R IPP Rev:D 05.03.21 Added bending procedure KJ/JLM IPP Rev:E 08-01-10 ECN 1075 DD IPP Rev F 08.04.28 Added bending & mat'l EC verified by: DD IPP rev G 10.05.27 chg QC15 to QC6 EC verified by: DD IPP REV:H 13.11.29 as per dwg DEO B-2 DD VERF:JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea		1/25/18	0.00	0.00	Start Up Crosstubes-1		DP2
105	HandFXtube	1 pcs		1/25/18	0.00	0.51	HandFinish5		2018/01/19 28
107	QC	1 pcs		1/25/18	0.00	0.00	QC7-1		DP2
110	CNC Bend Crosstubes	1 pcs		1/25/18	2.55	0.00	CNC Bend Crosstube		DAS 28/DP2
130	QC	1 pcs		1/25/18	0.00	0.00	QC15		47
140	Crosstubes	1 pcs		1/25/18	0.00	1.37	Crosstubes-1		9-89 DP2
150	HandFXtube	1 pcs		1/25/18	0.00	0.51	Crosstubes-3		DAS 35 DP2
155	QC	1 pcs		1/25/18	0.00	0.00	QC7-1		9-89 DAS 38
160	QC	1 pcs		1/25/18	0.00	0.00	QC5		38
170	SprayPaint	1 pcs		1/25/18	0.00	2.03	Spray Paint		AS DAS 38 JAN 27 2018
180	QC	1 pcs		1/25/18	0.00	0.00	QC14		38
190	Crosstubes	1 pcs		1/26/18	0.00	1.37	Crosstubes-1		38 18/02/08
200	QC	1 pcs		1/26/18	0.00	0.00	QC5		38
205	DC	1 pcs		1/26/18	0.00	0.00	DC		9-89
210	Packaging	1 pcs		1/26/18	0.00	0.00	Packaging3-1		Smr
220	QC21-FG	1 Ea		1/26/18	0.00	0.00	QC21		DAS 21 MAR 08 2018 9-89

Part Op 105 - INSIDE AND OUT

Descriptions: 110 - Bend as per Dwg D2889 using CNC bender program

140 - 1-Cut as per Dwg D205-596-105 2-*** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Deburr & Inspect for surface damage. Polish cut surface.Scribe part # and batch # on one end of tube.

150 - ***IMMEDIATELY AFTER GRINDING***

170 - *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** 1-Prime inside and outside as per dwg and per QSI 005 4.1 Batch: 138646 2- Paint outside per QSI 005 4.2 Batch: 138686

190 - 1- Lightly scuff the bonded area using a 180 grit sand paper and clean the area with 41058 wash 'n' wipe 2- Apply Proseal as per dwg D205-596-105 (DEO). Proseal Batch 138708 exp: 5/18 Self: 18-02-08 Final: 18-02-11

200 - ***PRIOR TO PACKAGING RECHECK TORQUE ON CLAMPS AFTER PROSEAL HAS CURED 72HOURS.***

205 - Photocopy D205-594 bluefile & type labels per PPP D205-596-105 CHG003

210 - Identify and pack for shipping as per PPP D205-596-105

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D6005-180	Crosstube Material <u>F103676</u>	1 Ea (1 ea)	90-Start up Operation	
D2893-1	Support	2 Ea (2 ea)	190-Crosstubes	<u>5038538</u>

D205-596-105/170724/5033641

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ No ☐ Suspense ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:12.5%;">Skid-tube</td><td style="width:12.5%;">☐</td> <td style="width:12.5%;">Cross tube</td><td style="width:12.5%;">☐</td> <td style="width:12.5%;">Water Jet</td><td style="width:12.5%;">☐</td> <td style="width:12.5%;">Engineering</td><td style="width:12.5%;">☐</td> </tr> <tr> <td>Machining</td><td>☐</td> <td>Small Fab</td><td>☐</td> <td>Prod. Eng. Coord.</td><td>☐</td> <td>Quality</td><td>☐</td> </tr> <tr> <td>Thermoforming</td><td>☐</td> <td>Finishing</td><td>☐</td> <td>Rec/Store/Packaging</td><td>☐</td> <td>Other</td><td>☐</td> </tr> <tr> <td>Large Fab</td><td>☐</td> <td>Composite</td><td>☐</td> <td>Supplier</td><td>☐</td> <td></td><td></td> </tr> </table>						Skid-tube	☐	Cross tube	☐	Water Jet	☐	Engineering	☐	Machining	☐	Small Fab	☐	Prod. Eng. Coord.	☐	Quality	☐	Thermoforming	☐	Finishing	☐	Rec/Store/Packaging	☐	Other	☐	Large Fab	☐	Composite	☐	Supplier	☐		
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Date : _____		Step #: _____		QTY Effective : _____				MRB (QSI042) Approval																																	
Description Work Order : _____ Job No: 170724 Start up operation 01/19/18 CHG003 Part No: S033641 Original Serial #: D205-596-105 Revision: CHG003 Operation: Start up operation 01/19/18 Change No: S033641 Original Serial #: D205-596-105 Revision: CHG003 Operation: Start up operation 01/19/18 PART NO: S033641 Original Serial #: D205-596-105 Revision: CHG003 Operation: Start up operation 01/19/18 Fwd cross-tube - Extended Height 3" DART AEROSPACE																																									

D3595-063-450

Rubber Cushion 0.63" Wide X 4.50" Long

4 Ea (4 ea)

190-Crosstubes

MS21920-25

Clamp

4 Ea (4 ea)

190-Crosstubes

5033985

M138441-169

Part Specifications

Specifications could not be found.

Plex 1/18/18 3:47 PM dart.poulin.mario

11/11/18

11/11/18

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

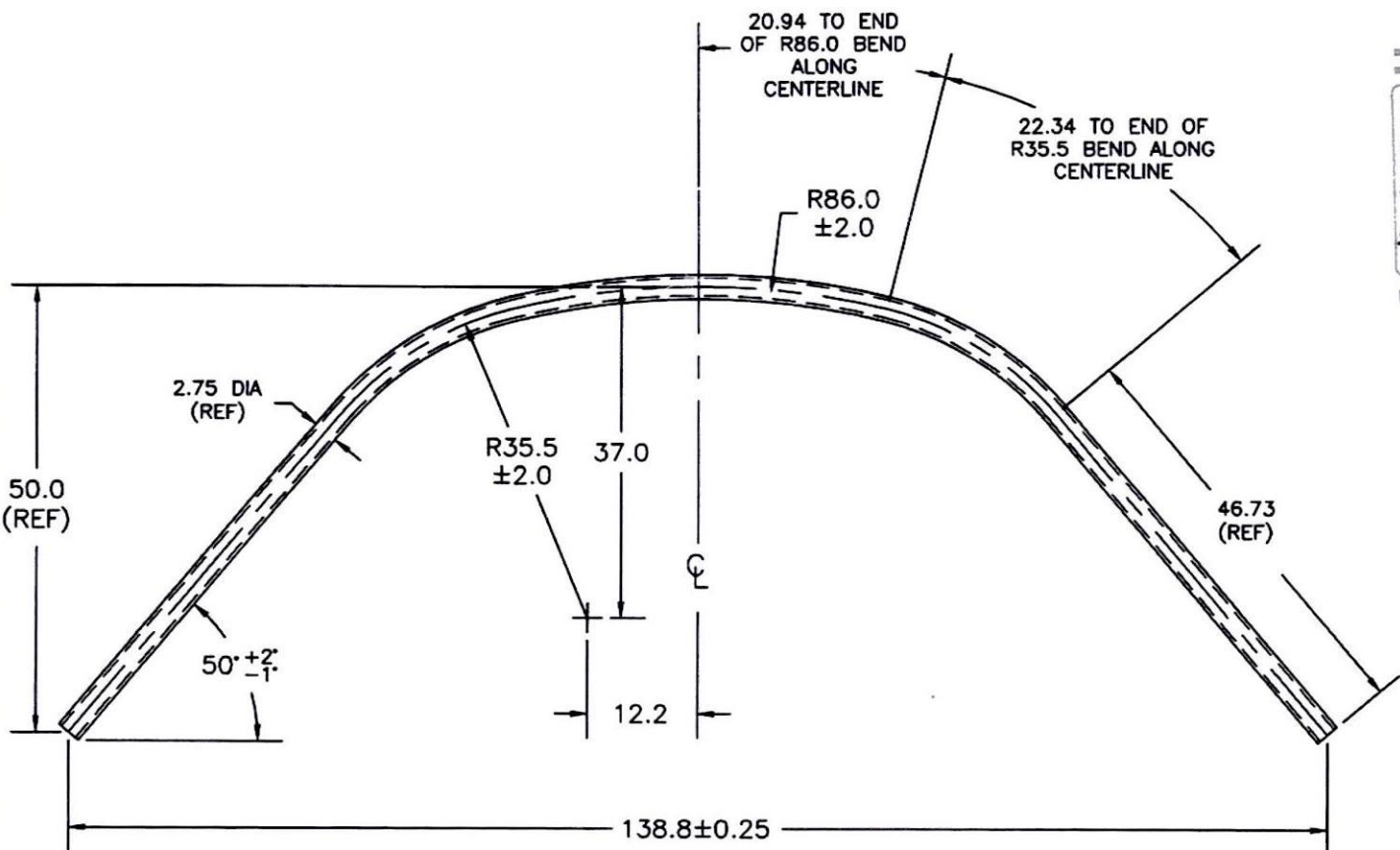
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																	
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DART**RELEASED**
02.10.28

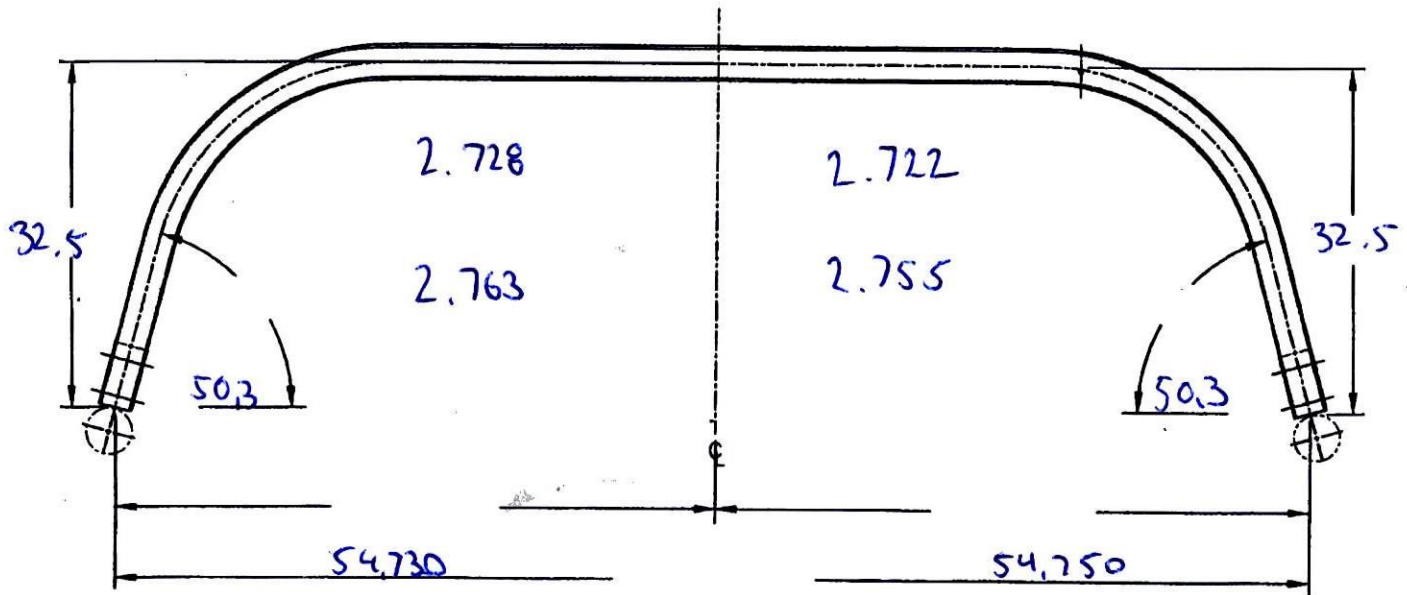
DESIGN	DRAWN BY	DART AEROSPACE LTD	
		HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO.	REV. B
#	#	D2889	SHEET 1 OF 1
DATE		TITLE	SCALE
02.10.18		FWD CROSSTUBE	1:20
A	99.05.21	NEW ISSUE	
B	02.10.18	ADD TANGENT LENGTHS; CHANGE NOTES	

**NOTES**

- 1) MATERIAL: MANUFACTURE FROM D6005-180 ($\phi 2.75$ OD x 0.375 WALL)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) PART IS SYMMETRIC ABOUT CENTERLINE
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) BEND PROGRESSIVELY WITH MINIMUM OF 3 PASSES
- 6) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.

DART AEROSPACE LTD	Work Order:	
Description: Crosstube High-High Fwd	Part Number:	D205-596-105
Inspection Dwg: D205-596-105	Rev: B	Page 1 of 1

Required Dimension	Min	Max
Height	32.4	32.6
1/2 Span	54.6	54.8
Angle	49	52
Total Span	109.2	109.6
Bending Passes	3	--
Crushing	--	6%



	Side A	Side B
Bending Passes	11	12
Crushing	0.6%	0.6%
Comments		

DAS

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QC15 Inspection	9-89
Date	18-01-25

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM	
B	08.04.21	Dwg Rev updated	KJ/JM	
C	12.04.16	Added bending, crushing dimensions	KJ	